THE

JOURNAL OF HEALTH.

CONDUCTED BY AN ASSOCIATION OF PHYSICIANS.

Health—the poor man's riches, the rich man's bliss.

VOL. III. PHILADELPHIA, SEPTEMBER 28, 1831. No. 2.

BENEVOLENCE, if not guided by knowledge, is often the source of deplorable errors; and hence, the obvious duty of every man, whether in his individual capacity, as a member of society, or in his situation of legislator or ruler, is, to study all the bearings of the opinions which he inculcates, or of the law he is instrumental in framing. Purity of intention may prevent us regarding, or treating with asperity a person whose conduct brings his fellow creatures to ruin; but this excuse is of little avail to the sufferers, whether their minds have been tainted by seductive immorality, or their bodies destroyed by the material agents of disease.

It argues an excessively limited intellect, not to refuse, or a depraved state of feeling, knowing the general effects, and yet to grant a request, or to adopt a line of conduct, gratifying to the individual desiring it, or pleasing to the interested few, in a particular emergency, but adverse to the honest efforts, and permanent rights of the many; in fact, opposed to the true interests of the community. It is a conduct unsound in morals, unphilosophical in logic, unjust in law, and opposed to true republicanism in government, that the present contingent convenience of a few, is to justify measures which a more enlarged view of the subject would show to be productive of great, if not permanent, evil to the many. As amenable to this censure, we may instance physicians, who consent to foster the pretensions of quacks, and lend themselves to the sale of quack medicines; also physicians, writers, and others, who, to humour the false appetites and illiberal

prejudices of a limited circle in which they move, are opposed to any plans of reform in dietetics or medical police, which has for its object, and on good evidence will unquestionably have the effect, to preserve the health of the community, and prevent numerous diseases and moral ills.

We are afraid that they are amenable, also, to this censure, though their intentions be pure, who cry out contagion, urge rigid quarantine regulations on the appearance of an epidemic disease, without having duly possessed themselves of all the circumstances attending its origin and mode of transmission. It is not a sufficient justification of their advice and precautions to allege, that if they err, it is on the safe side; and thus should the disease be contagious, the preventive measures suggested by their fears, will have a salutary effect. This we can show to be a limited and hasty view of the subject. We will suppose a person to be labouring under a violent disease, marked by symptoms of extreme complexity and danger. The timidly cautious may think it proper to intimate to the friends and others in the house, that the disease is contagious, and that they had better expose themselves as little as possible to it. Now we would ask, whether this person will have the same attention paid to his wants, the same soothing kindnesses displayed to him, as before this caution?—assuredly he will not. Many of his friends will suddenly absent themselves; others will approach with a look of evident alarm, and hurry away as soon as they possibly can, compatibly with appearances. The hired attendants will do their duty imperfectly and reluctantly; drinks and medicines will be often withheld rather than their administration should oblige one to approach close to the bed-side of the patient. And what will be the effects of this conduct on the mind of the latter? None other can be expected but irritation at first, and despondency afterwards; and of course, diminished chances of recovery.

On the friends in the house, the influence of the fear of contagion, will also be very great. Fear is one of the strongest depressing powers, and predisposes more than any other cause whatever, to an attack of epidemical disease. If to this cause, constantly in operation, be added loss of rest, the chances are multiplied tenfold in favour of some one or more of the friends of the patient becoming sick, themselves. The first opinion of contagion will now seem to be corroborated by this last case. The fears of the other members of the family or persons in the house, will be aggravated beyond measure—their precautions will increase, and of course the sick will have to encounter more and more neglect.

We have but to apply what is here supposed of a single family, to a part of a city, or to a city entire, or a particular district of country, and we can imagine what must be the sufferings, not only of the sick, neglected at home, and not approached from

abroad, but also of the people generally, of the suspected district; they are shunned if they go out for a requisite supply of provisions, meat, vegetables, and fruit; and no person will run the risk of *catching* the disease, by bringing these necessary articles to their houses. All that is required to complete the scene of misery, is for government to formally sanction and enact, under heavy penalties, the entire separation of the sickly city from the surrounding country, and give the support of law to the already cruel operation of ignorant fear. Pestilence will now stalk abroad, and death carry off his victims at every hour; no change of air is allowed to the sick, no change of scene, or recreation, or of diet, to their friends and fellow citizens generally; and thus the precautions taken to guard against the spread of disease, insure the continuation of its destructive ravages; and the hundreds and thousands of those who descend to the grave—but no, they cannot even obtain burial—these hundreds and thousands, we say, who perish during the season of epidemic disease, are considered proof positive of its malignity and pestilential character. The deaths caused by cruel ignorance, are, by a still more cruel mockery, cited as evidences of forethought, and of the wisdom of prophecy. But after all, was the disease really contagious? Often times it has been proved not to be so, after all the horrors above described have been enacted, under the supposition that it was. Will it be adequate justification for those who enforced the cruel preventive measures, as they thought them, to say that they meant it for the best—that they kept on the *safe side?*

THE RUSSIAN CHOLERA.

In the account of the East India cholera contained in our last number, we traced the progress of the epidemic from its origin, in 1817 at Jessore, until its entrance into Astracan, in September 1823; at which latter place its progress appears to have been arrested by the approach of winter, in the month of November. Subsequently to the year 1823, the disease pursued its destructive career through China and various parts of India, and towards the close of 1826, after desolating several cities in Mongolia, it reached the frontiers of Siberia; its future progress was, however, checked for a time, by the prevalence of a strong north wind, during the month of February ensuing. In Persia the disease re-appeared several times; visiting, in October 1829, the city of Teheran, which is the residence of the royal family; but with the setting in of cold weather, as had previously been the case, its ravages were here also suspended.

Towards the middle of June 1830, the cholera again broke out in the provinces of Mazanderan and Shirvan, upon the southern

shore of the Caspian Sea. From thence it passed through the town of Tauris, destroying five thousand of the inhabitants. Crossing the Russian frontier, it rapidly advanced towards the interior. In two provinces, 4557 persons were seized with the malady, of whom more than one third perished. On the 8th of August, it entered Tiflis, the population of which was soon diminished from thirty to eight thousand, by death, and migration to avoid the distemper. By the 1st of July 1830, the epidemic had again reached Astracan. Ten days subsequently, 1229 individuals had been attacked, of whom more than a third died, including the civil governor, and nearly all the officers of the police. The course of the disease was no longer arrested by the approach of winter; in August of the preceding year, it first manifested itself in Orenburg, the capital of the Russian province of the same name, and attained its utmost malignity during December and January, when the cold is the most intense. In February 1830, the epidemic visited the village of Massina. The number of sufferers amounted to 3590 of whom 865 died.

In penetrating to the heart of the Russian empire, from Astracan, the cholera pursued the course of the Volga, which spreads its navigable waters over the most populous provinces.

At Moscow it made its appearance between the 24th and 27th of September, in a number of scattered cases, having previously prevailed at Nishney Novogorod, a city 280 miles east of the former. The disease increased with great rapidity, so that by the 26th of November the number attacked by it was 1066, and on that day 244 new cases were added to the list. On the 17th of November, according to the official statements, the total number affected with the disease up to that date was 6531, of whom 3508 died. The labouring classes, to a considerable amount, had been removed to their villages, and many of the nobility left the city entirely; so that the population, which is estimated at 250,000, was considerably reduced. According to Dr. Loder, physician to the Emperor of Russia, the entire number of cases which had occurred in Moscow, up to February of the present year, was 8130; of these 4385 perished. On the first of January, 1831, the disease had greatly declined in the capital, while it still continued to prevail among the troops destined to the reduction of Poland, and over various extensive provinces of the empire. From Dantzic to Odessa, and from Odessa to the White sea, the principal towns and villages have experienced its ravages. In St. Petersburgh, it appeared on the 26th of June, and by the 11th of July, of 3076 individuals attacked, 1311 had died. At Archangel, out of 1200 cases there had been 800 deaths. Of the mortality which attended it in Warsaw and Riga, we possess no accurate information.

The foregoing comprises a general view of the spread of the

epidemic cholera during the last fourteen years;—and so far as we have been furnished with documents of the limits to which it is at present confined, what may be the direction or extent of its future progress time alone can determine.

GENOA—NARROW STREETS.

The inhabitants of the United States are foolishly prone to borrow practices and notions from England, connected with private architecture, domestic economy, and personal attire, at variance with the nature of their climate, and in direct opposition to the examples set by the people of other countries, the climate of which has a close resemblance to our own. In place of taking hints from these latter, our good citizens prefer imitating the John Bull fashion, of sneering at usages which do not precisely accord with the state of things at home. Rather than attempt to mitigate the severity of the extremes of temperature, to which we are exposed during the summer and winter seasons, we talk largely of our becoming inured to all weathers, of the necessity of the hardening process, and such like generalities, which, in the mean time, go little to the prevention of suffering, disease, and death.

A constant theme for declamation with English travellers on the continent of Europe, is the narrowness of the streets, and the gloomy appearance of the houses. They who see so little of the sun at home, cannot conceive of people not acting the part of eastern magii, and of ever declining to expose themselves to the rays of that bright luminary.

In reply to these sage critics, it ought to be stated, that in all southern and eastern climes, where the heat is great, the inhabitants have always been particularly solicitous of shade, from a general and deep-rooted belief of the injurious effects of much exposure to the solar rays, especially on those who are not called upon to work regularly, and uniformly in the open air. Actuated by this belief, the inhabitants of all the southern cities of Europe, and those of Asia Minor, Egypt, and Barbary, have continued to preserve the streets very narrow.

We learn the importance which the Romans attached to shade, from a passage in Tacitus, in which he attributes the unhealthiness of Rome, after the great fire of Nero, to the streets being wider, on the rebuilding of the city, and consequently, the houses not affording the same shelter, as formerly, from the sun's rays.

Useful hints on this subject might be borrowed from the savages themselves. We remember to have seen Malays, in the island of Sumatra, with scarcely any clothing on them, but yet

who, when obliged to remain on the sea shore, trafficking with watering parties from the vessels at anchor, gathered branches from the trees, and thus formed a protection for themselves from the sun, while the more *civilized* sailors were exposed to its rays, and suffered accordingly.

We present these remarks, which we have been in the practice of repeating on a different occasion from the present, as introductory to a few passages from a late work, by a physician of some distinction, and withal, a traveller.

"I imagine that Genoa offers the closest resemblance to ancient Rome (public edifices and magnitude out of the question) that now exists in any part of the world. There was an edict issued in the former mistress of the world, that the houses should not exceed 90 feet in height, which, I think, is about the altitude of the Genoese houses. The streets of Rome could not have been narrower than those of Genoa. The effect of all this is very curious. We appear to be traversing a subterraneous city, from the gloom and depth of which, we see narrow stripes of blue sky at an immense distance above us! The storm may rage, the lightnings may flash, the thunder may roar—but all is still and dark, and tranquil as the grave in these subterranean crevasses, where the sun never darts his rays, the wind is never felt to blow—and where even the rain can scarcely descend, except from the spouts of the houses. The consequence is, that the shopkeepers, the artizans, and all the sedentary inhabitants of Genoa, live in an atmosphere which is equi-distant from the extremes of heat and cold. They are completely secured against the scorching beams of the sun, and the chilling blast of the tramontane. I could not believe the extent of this immunity till I drove out to the Pier, under the shelter of the houses, and exposed to a meridian sun. When I mounted the higher lighthouse, (Fanale,) perched on a rocky promontory near the commencement of the Mole, to enjoy the magnificent scenery of Genoa and its neighbourhood, the tramontane blast was so piercing, that, hardened as I was against atmospheric transitions, I was yet unable to withstand it for more than a few minutes at a time—and repeatedly was I obliged to retreat into the lantern to recover my breath, and elude the icy current of air from the mountains! The prospect was so enchanting, that I remained on this elevated situation for an hour, when a shivering fit and a violent paroxysm of coughing warned me that I had endangered my health—perhaps my life, for the gratification of my senses! Let no invalid ascend this tower during a tramontane! The CUSTODE at the bottom furnished me with a cup of coffee; and I walked back to the city at a quick pace, which restored the balance of the circulation, and preserved me from the effects of a chill which drove every drop of blood in my body from the surface to the

centre of the animal machine!* On entering the streets of Genoa, I was astonished at the difference of temperature. The tramontane was undistinguishable; and I breathed the gloomy but equable atmosphere, without any sensation of coldness, but rather of warmth. This fact illustrates the wisdom of constructing cities in Italy, and in all climates where great and sudden vicissitudes of temperature prevail, with high houses and narrow streets. It shows that the criticisms of the ancients on Nero's plan of building Rome with wide streets, were not without foundation in justice. I was informed by Dr. MOJON, (a very talented physician of this place) that GENOA, in consequence of its construction and peculiar site, is, in reality, one of the best localities for a pulmonary invalid along the whole line of this coast—and I believe his statement to be true. A person with weak lungs, or indeed, with any *organic disease*, cannot too sedulously avoid all sources of excitement. Light, noise, heat, and cold, when considerable in degree, are all excitants, or irritants; and, consequently, their opposites, darkness, silence, and equable temperature, are sedatives or soothers, very advantageous in complaints of an inflammatory or feverish nature. Those invalids who determine on a Winter or Spring at Genoa, would do well to select a low and sheltered, rather than a high or airy part of the town for their residence—and only venture forth in fine and still weather, when the wind is from the ocean, and not from the Alps."†

The reader will be careful, after perusing these extracts, and our own preliminary remarks, not to confound narrow and well paved streets, with dirty, narrow, and crooked ones; nor to suppose that health is compatible with entire seclusion from the broad light of day, or even from the sun's rays themselves. In the city, an artificial climate is created, which it behoves us to render as favourable as possible to life and health. This is certainly best done, by an avoidance of the extremes of temperature, and especially, as we should say, of excessive heat.

PROPORTION OF NUTRIMENT IN DIFFERENT KINDS OF FOOD.

A very interesting report on the comparative nutritive properties of food, was presented, a few years since, to the French minister of the interior, by M. M. Percy and Vauquelin, two celebrated chemists, and members of the French Institute. The high professional reputation of these gentlemen is such as to pre-

* A figurative and misleading style of expression this, derived from hydraulics, but not applicable to the movements of the fluids of the living system.—ED. J. of H.

† Changes of Air, or the Philosophy of Travelling, &c. &c. by James Johnson, M. D. &c. Reprinted, New York, by Samuel Wood & Son, 1831.

vent any doubt existing as to the accuracy of their experiments, the results of which are as follows:—

Of *Bread* every 100lbs. weight were found to contain 80lbs. of nutritious matter. *Butcher's Meat*, averaging the various sorts, contains only 35lbs. in 100. *French Beans* (not the green pods, but the seeds) 92lbs. in 100. *Broad Kidney Beans* 89lbs.; *Peas* 93lbs.; *Lentils* (a kind of half pea, but little known in this country) 94lbs. in 100. *Greens* and *Turnips* which are the most aqueous of all the vegetables used for domestic purposes, furnish only from 6 to 8lbs. of solid nutritious matter in 100. *Carrots* 14lbs. and *Potatoes* only yielded 25lbs., of a substance valuable as nutrition, in the 100. One pound of good bread, therefore, is equal to upwards of three pounds of the best potatoes; and 75lbs. of bread, with 40lbs. of meat, are equal to 300lbs. of potatoes;—or, to go more into details, three quarters of a pound of bread with 9 ounces of meat, are equal to 3lbs. of potatoes,—1lb. of potatoes is equal to 4lbs. of cabbage and three of turnips.—But 1lb. of rice, broad beans, or French beans, is equal to 3lbs. of potatoes.

In the foregoing statement, two things will be apt to surprise the reader.—First, the greater amount of nutriment contained in bread and the farinaceous seeds generally, than in all the other articles of our ordinary food: and second, that though the potato ranks, in regard to the proportion of nutritious matter it affords, far below the foregoing, yet when compared with butcher's meat, there is found to be but 10 per cent. in favour of the latter. The experience of large bodies of men –of even extensive districts of country, is in evidence of the general truth of these conclusions. A large proportion of the most healthy and robust of the English peasantry live mainly upon farinaceous substances—the same is true, to a still greater extent, of the inhabitants of the south of Europe, and of different parts of the Asiatic continent. The potato forms, we know, the chief food of the Irish peasantry, than whom, when their constitutions have not been destroyed by causes connected with their political and moral condition, no set of men exhibit a greater amount of health, nor more athletic forms. The inhabitants of many parts of Germany enjoy perfect health upon a diet principally of different preparations of rye and barley, while the hardy, shrewd, and enterprising Scot lives on potatoes, and oat meal variously cooked.

Dr. Stark informs us, that upon a diet of 4lbs. of milk and 30 ounces of bread, his health and strength were fully sustained, while his body increased rapidly in bulk. It was remarked by Brindley, the celebrated canal engineer, that, in various works in which he had been engaged, where the workmen being paid by the piece, each exerted himself to earn as much as possible, men, from the north of Lancashire and Yorkshire, who adhered

to their customary diet of oat cake and hasty pudding, with water for their drink, sustained more labour, and made greater wages than others, who lived on bread, cheese, bacon and beer, the general diet of the labourers of the south.

Flesh presents a greater amount of nutriment in a given *bulk*, than vegetable aliment; it is also more readily digested, but it stimulates or heats the system more than the latter. It is on many accounts, especially in cold climates and during the winter season, a very useful and appropriate, though by no means, as we perceive, an essential part of the diet of the active labourer.

CAUSES OF THE EPIDEMIC CHOLERA.

To what all-pervading cause, are we to refer the production of cholera? The disease has already traversed a portion of the globe, equal in extent to upwards of seventy degrees of latitude, and one hundred degrees of longitude; it has prevailed in climates the most dissimilar, at every season of the year, and amid every variety of weather. The ordinary causes of disease, therefore, whatever influence they may exert upon its progress and malignity, afford us no satisfactory explanation of its origin. The production of epidemics of every species, is, in truth, a problem difficult, if not incapable of solution. To some peculiar morbid condition of the atmosphere, they are doubtless all to be referred—the exact nature of which, however, has heretofore, and possibly ever will escape our strictest scrutiny.

That the production of cholera, at least, is referrible to some morbid property residing in the air we breathe, is rendered almost certain, by the peculiar character of the disease. In no other manner can we explain its sudden appearance in the midst of an extensive population, the greater part of which become at once its subjects. In Mr. Jameson's Bengal report, it is stated that 2,000,000 persons had assembled to celebrate a religious festival on the shores of the Ganges; the cholera suddenly broke out amongst them, while at their devotions, and in eight days destroyed 20,000 persons! The pestilence was stayed as soon as the multitude was dispersed; it did not extend even to a village only seven miles distant.

Some of the phenomena, remarks an intelligent writer, observed in the cholera of the east, seem to indicate that the causes operated as a poisonous cloud, (if we may suppose such a thing,) would have done. The poisonous effect has often been as sudden, as we can conceive. Men in perfect health, arrive at a certain spot, and fall down by dozens; some, never to rise again, and others to escape barely with life, after excessive pain and torture.

Cases are also related of large bodies of men entering into such a stratum of poisonous air, as at Nagpoor, for instance, and also the troops which suffered so terribly on a march from Ganjam through the northern Circars. In other cases, the pestilential cloud seems to have been wafted into the midst of a stationary assemblage, as at the camp of the marquis of Hastings, on the banks of the Sinde; the disease, in this latter instance, rapidly abated after the removal of the encampment from the infected district to the high grounds at Erich.

The cessation of the cholera was equally sudden with its invasion, at least in India; where, after prevailing for a time in one place, it, as it were, ceased at once its ravages, to make as rapid an attack in another and distant quarter. It very rarely remained in much vigour at any place, for more than fifteen or twenty days, and sometimes was exhausted in a much shorter time. Armies have fled from the track of the pestilence, and been safe, out of the limits of that track.

The *intemperies* of the atmosphere to which we have referred the production of cholera, does not appear to depend upon any poisonous exhalation, derived either from the soil, or from the bodies of the sick. This is evident, as well from the wide spread of the disease, its not extending itself from a centre to a circumference, nor following the course of the wind or of the sun, nor obeying any other meteorological phenomenon: frequently indeed, it has been known to pursue its course in the very teeth of the most powerful monsoons. Contagion and miasms floating in the air, seldom extend more than a few feet beyond the spot from which they derived their source; when wafted to a greater distance, it is always in the direction of the prevailing winds.

But whatever has a tendency to vitiate the atmosphere of any given neighbourhood, would appear to invite the disease, and increase the number of its victims. Thus, the cholera has prevailed most generally, and to the greatest extent, in the thickly populated cities of the east, where cleanliness and ventilation are but little attended to; and even in these cities, its principal ravages were among the poorer and more debased of the people. A similar statement may be made in reference to its progress through the north of Europe. We also find that the dispersion of collected masses of people, as in the case of the religious assemblage on the banks of the Ganges, or removal to a dry, elevated, and more healthy situation, as in the instance of the marquis of Hastings' army, was sufficient to arrest completely the disease.

It is stated, that during the recent prevalence of the cholera in Calcutta, the dead bodies of the poor were cast into the river Hoogly, while in addition to this source of noxious exhalations, the city was in so filthy a condition, that the adjutant crane and

jackall, crows and kites, were permitted to enter the city in vast numbers, to act as scavengers.

A physician of eminence, and member of the council to whom the investigation of the nature of the disease, as it occurred in Moscow, was especially entrusted, states that the intensity of the disease was in direct ratio to the dampness of the atmosphere; the epidemic prevailing chiefly among the lower classes, who resided in moist and low situations. It is notorious, also, that inattention to cleanliness is a characteristic of these very classes. A somewhat similar statement, is also made by Dr. Rankeen, who attributes the occurrence of the cholera in Bengal, to the conjoint operation of sudden changes of weather, humid soil, and damp atmosphere, in connexion, more especially, with a diet of rice or other grain, vitiated by the wetness of the season.

Mr. M'Cormick, an East India surgeon, speaking of the cholera as it appeared in Tabriz, a town in Persia, says that the disease first began in that part of the city which is low, filthy, and crowded with poor inhabitants.

It is said that four days previous to the occurrence of the cholera in Riga, upwards of fifty cart loads of filthy rags, and almost putrid garments, the clothing of those who had died in the Russian camp, many of them of the very disease in question, were brought into the city, and deposited with all the filth with which they were imbued, in the public stores.

But notwithstanding the remote causes of the cholera are, in all probability, connected with a particular constitution and vitiated condition of the atmosphere, yet a certain condition of the human system, or a predisposition to disease, would appear to favour its production. When it made its appearance in a city, all the inhabitants were not equally liable to its attacks, many entirely escaping, notwithstanding their full exposure to its remote causes. It was among the lower classes of the people—the ill fed, ill clothed, those living in low damp houses, huts or cellars; and those given up to habits of intemperance, and careless of health, who were the first and most numerous victims of the disease. The temperate and prudent most generally escaped, or suffered but a slight attack. To this fact nearly all the physicians who have had an opportunity of studying the disease bear testimony. Dr. Jœhnichin of Moscow, declares that drunkenness, debauchery, bad food and personal indiscretions, were incontestibly its predisposing causes. Dr. Riecke informs us, that in China, the disease selected its victims from among such of the people, as live in filth and intemperance. A physician of Warsaw states, that the disease spared all those who led regular lives, and resided in healthy situations; whereas they whose constitutions had been broken down by excess and dissipation were invariably attacked. Out of 100 individuals destroyed by the cholera, it was proved that 90 had

been addicted to the abuse of spirituous liquors. Marshal Diebitsch used to drink brandy and punch frequently during the day. He, as our readers know, has been among the latest victims to this disease. The females, who were rarely addicted to the use of distilled liquors, very generally escaped. The experience of all ages has, in fact, shown that the only effectual means of escaping any epidemic disease, is to preserve the resisting powers of the system in their greatest possible vigour, by good wholesome diet, regular exercise, temperance in all things, a cheerful temper, and undaunted spirit. On the other hand, there is no surer way of inviting an attack, than to be calculating the chances, and searching after the reputed means of preservation—to brood over its terrors, or watch its approach with anxious and incessant solicitude. To attempt to drown these fears by stimulants or narcotics of any kind, to weaken the system by starvation, or derange it by repletion, are equally subversive of the end for which they are ignorantly resorted to.

MEDICAL JURISPRUDENCE.

Medical Jurisprudence, or Legal Medicine, as it is generally called on the continent of Europe, has for its object, according to an Italian writer, whose work* is now before us, to enlighten the judges in those causes or cases in which medical knowledge is demanded. If we substitute tribunals for judges, we shall probably have in a few words as correct a definition as can be given.

In an English work on the subject (Paris and Fonblanque) the subject is thus stated: "Medical Jurisprudence may be defined, a science by which medicine, and its collateral branches, are made subservient to the construction, elucidation, and administration of the laws; and to the preservation of public health.

"It accordingly resolves itself into two great divisions—into *Forensic Medicine*, comprehending the evidence and opinions necessary to be delivered in the courts of justice; and into *Medical Police*, embracing the consideration of the policy and efficiency of legal enactments for the purpose of preserving the general health and physical welfare of the community."

In whatever concerns the preservation of health by public measures, the government of all countries are at this time behind the wants and rights of the people. Gymnasia and public baths—laws regulating the intercourse between those afflicted with contagious diseases, and the healthy, are evidences to show that the ancient legislators, both sacred and profane, were more attentive to public hygiene and medical police, than our learned law enactors of the present day.

* *Introduzione alla Medicina Legale: di Lorenzo Martini.* Torino, 1825.

As it is not our intention to be either very profound or very dry, in treating the subject of Medical Jurisprudence, we shall proceed at once to lay before the reader some of the more important topics embraced in the study and practice of this science. These are; infanticide; poisoning; asphyxia, or suffocation by hanging or drowning: death by blows, wounds, or other similar violence; and insanity.

In the accusation of infanticide, we have to determine, 1. Whether the child were of such an age that it could possibly have lived after birth. 2. Whether from the condition of the mother it could have been born alive. 3. Whether it was born dead or alive, and if the latter, the true cause of its death. Connected with a knowledge of the age at which an infant can possibly live, is the decision of certain questions of inheritance.*

It is not to be expected of us that we can, consistently with the objects of this Journal, enter into details of infanticide, which are only fit for the perusal of a professional reader, and the solemnity of a criminal trial.

In accusations of poisoning, the medical jurist is called upon to ascertain whether death has been caused by any substance swallowed, or inhaled by the lungs, or applied to the skin; and to test its real nature by unequivocal demonstration.

To some persons, distinctions on which stress is laid in medico-legal inquiries, would seem to be useless refinements; but experience shows that they are often of great importance. Among these are, in a case of death presumed to have been caused by hanging, to determine whether a man found suspended by the neck, had hanged himself, or was hanged by others; and to ascertain whether this was the cause of his death, or if he had been suspended after death, caused by violence of a different kind. So, also, we may be called upon to determine whether a person taken out of the water dead, had been drowned by jumping into it, or by being thrown in by others; or whether he had been really drowned or was thrown into the water after death from another cause.

That part of Medical Jurisprudence respecting the evidences of insanity, and the validity of the plea of irresponsibility and loss of free agency, urged by friends and counsel, is one of great moment. We have in our possession a large number of cases illustrative of this subject as well as of the other topics adverted to above, the histories of which, from time to time, as our space allows, we shall lay before our readers. Judges and jurymen, which is equivalent to saying citizens in general, also lawyers and physicians, will find their interest in these accounts, by being enabled

* We remember to have heard a celebrated French professor say, that in an old trial involving property to a large amount, the court admitted that it was possible for the person claiming the estate to have been born five months after the marriage of his parents, without any impeachment of their virtue. No court would now-a-days entertain such an idea.

therefrom to correct popular prejudices, and to preserve the rights of society, while at the same time due attention is paid to the claims of humanity.

SYRUP OF MILK.

Not having time ourselves to repeat the experiments of M. Braconnot, for the preparation of the "concentrated liquor of milk," we obtained the assistance of Thomas Evans, a scientific druggist and apothecary of this city, who has kindly favoured us with the following note:—

"Five gills of new milk required one drachm of diluted hydrochloric acid, (specific gravity 1.091, and 100 grains requiring 58 grains of crystallized sub-carb. sodæ to saturate it,) to separate the curd.—The curd weighed four ounces, was soft, friable, and tasted much like the common curd sold in the market. It was slightly acidulous when tested by litmus paper. To this quantity of curd, 38 grains of crystallised sub-carb. sodæ, in powder, was added, and thoroughly incorporated with it. During this process the curd became more tough and oily, and the acid was neutralized. Taste of the mixture, bland and pleasant, not unlike new cream cheese. Half an ounce of this curd rubbed with one ounce of cold water, produced a rich liquor, similar in taste and appearance to very rich new milk. The curd does not readily dissolve in cold water: but when the water is a little warmed, the solution is easily effected.—To one ounce and a half of the liquor was added an equal quantity of sugar, forming a syrup of milk; which being evaporated by mild heat, yields about an ounce and a half of confection. A better mode of preparing the confection, is to add to one ounce of the curd, an ounce and a half of loaf sugar in powder, and rub them together: a rich and agreeable confection of milk is at once formed, which may be kept for a long time without change."

THE ACCLIMATING PRINCIPLE OF PLANTS.

From an interesting article with the above title, in the third or September number of the Monthly American Journal of Geology, we make the following extract. The article is a continuation of the subject, treated of in the first number, and manifests an observant and studious mind, accustomed to commune largely with external nature. The success of the Monthly American, which we had hoped for at its first appearance, may now be considered as an affair beyond doubt, if science, presented in varied lights and attractive forms, alternately recondite and

amusing, and adapted really to the wants and tastes of the people, can furnish any guaranty to this effect.—But to our extract:—

"The valley of the Euphrates was doubtless the native region of all those fine and delicious fruits which enrich our orchards, and enter so largely into the luxury of living. We thence derived all the succulent and nutritious vegetables that go so far to support life; and even the farinaceous grains appertain to the same region. The cereal productions began in that same valley to be the staff of life.

"Our corn, our fruit, our vegetables, our roots, and oil, have all travelled with man from Mesopotamia up to latitude 60°, and even farther, in favourable situations. The cares of man have made up for the want of climate, and his cultivation atoned for this alienation from their native spot. The Scandinavians of Europe, the Canadians of North America, and the Samoides of Asia, are now enjoying plants which care and cultivation have naturalized in their bleak climes. Melons and peaches, with many of the more tender plants and fruits, once almost tropical, have reached the 45th degree of latitude in perfection, and are found even in 50°. Rice has travelled from the tropics to 36°, and that of N. Carolina now promises to be better than that of more southern countries. The grape has reached 50°, and produces good wine and fruit in Hungary and Germany. The orange, lemon, and sugar-cane, strictly tropical, grow well in Florida, and up to 31½°, in Louisiana, and the fruit of the former much larger and better than under the equator.

"Annual plants grown for roots, and vegetables, and grain, go still farther north in proportion, than the trees and shrubs, because their whole growth is matured in one summer; and we know that the developement of vegetation is much quicker when spring does open in countries far to the north, than in the tropics. In Lapland and on Hudson's Bay, the full leaf is unfolded in one or two weeks, when spring begins, although it requires six or eight weeks in the south. Nature makes up in despatch for the want of length in her seasons, and this enables us to cultivate the annual plants very far to the north, in full perfection. The beans, pumpkins, potatoes, peas, cabbages, lettuce, celery, beets, turnips, and thousands of others, seem to disregard climate, and grow in any region or latitude where man plants and cherishes them. The fig is becoming common in France; the banana, pine-apple, and many other plants, have crossed the line of the tropics; and thousands of the plants valuable for food, clothing, and medicine, and such as are cultivated for their beauty, fragrance, or timber, are extending their climates, and promise much comfort and resource to man. Plants lately introduced, whose cultivation has not run through many ages or years, have acquired but little latitude in their growth, and show but little capacity to bear various climates, because time has not yet habituated them to such changes, and human cares have not imparted to them new habits and new powers."

THE PLEASURES OF A CANTER.

Napoleon himself, whose resource under depression of spirits, and incipient indisposition, was to put himself on diet, and mount his horse for a fast ride, would not have refused his assent to the following description of the benefits and pleasures of a canter. Next to this, in efficacy, as a cure for the blues and vapours, for the host of imaginary diseases which are too oppressive for the

poor hypochondriac to bear any longer, is—do not anticipate us, kind reader, we mean neither his drowning, nor marrying, nor any such venturous deed; the first being a mark of insanity, the latter of his *malice prepense* to injure another's peace of mind—our remedy we say is to toss the invalid into a stage-coach, and commend him to some friend in Pittsburgh, St. Louis, or Nashville, or any such decently remote part, so as to insure adequate jolting and attention to the safety of neck and limb, a forced look abroad at scenes as they present themselves, and some little efforts at civility, and a polite desire to please others, in order that the traveller may himself receive civility.

"A canter is the cure for every evil, and brings the mind back to itself sooner than all the lessons of Chrysippus and Crantor. It is the only process that, at the same time, calms your feelings, and elevates your spirits, banishes blue devils, and raises you to the society of "angels ever bright and fair." It clears the mind; it cheers the heart. It is the best preparation for all enterprises, for it puts a man in good-humour both with the world and himself; and whether you are going to make a speech or scribble a scene—whether you are about to conquer the world or yourself—order your horse. As you bound along, your wit will brighten, and your eloquence blaze, your courage grow more adamantine, and your generous feelings burn with a livelier flame. And when the exercise is over, the excitement does not cease, as when it grows from music, for your blood is up, and the brilliancy of your eye is fed by your bubbling pulses. Then, my young friend, take my advice—rush into the world, and triumph will grow out of your quick life, like Victory bounding from the palm of Jove!"

Just published at the Literary Rooms, No. 121 Chesnut Street.

A TREATISE ON BATHS AND MINERAL WATERS, By John Bell, M. D. Lecturer on the Institutes of Medicine, and Medical Jurisprudence, &c. in one 12mo volume of more than 500 pages.

The work consists of two parts. The first is divided into eight chapters, in which are given, in succession, a historical sketch of bathing; a view of the functions of the skin and means of protecting it against atmospherical vicissitudes; accounts of the utility in health, and the remedial value in diseases, both acute and chronic, of *cold, sea, tepid, warm, hot, and vapour baths.* The distinctive characters of each kind of bath, and the circumstances in which it is beneficial or hurtful, are clearly laid down, and accompanying precautions in regard to regimen and exercise in chronic diseases carefully noted. The chapters on sea and cold bathing are particularly full—the chapter on vapour baths includes also an inquiry into the efficacy of the inhalation of common watery, and of medicated vapours, as of iodine and chlorine, for the cure of consumption; the whole illustrated by cases.

The second part of the work is divided into seven chapters, in which will be found, a history of Mineral Waters, and of their general reputation in the cure of diseases. Copious accounts of the most celebrated mineral springs of the United States, and their medicinal virtues are still further illustrated by references to the powers, in these respects, of the chief mineral springs of Europe, of similar composition and temperature.

The work, though mainly addressed to the medical profession, contains numerous useful precepts and hints for the guidance of those who would resort to bathing as a means of refreshment or luxury or for the preservation of health. But in no instance is it pretended to make an invalid his own doctor, even in the use of baths; it is only meant that he should be cautioned against popular errors, and be better prepared, when actually suffering under disease, to accede more cheerfully to the recommendations of his physician to use them.